

REMARKS

Claims 1-10, all the claims pending in the application, stand rejected. Claims 4, 5 and 7-10 are amended. No claims are cancelled. New claims 11-13 are added.

Claim Rejections – 35 USC 112

Claims 1-10 are rejected under 35 USC 112, second paragraph, as being indefinite. This rejection is traversed for at least the following reasons.

The Examiner points to the text of claim 1 at line 5 and asserts that the term “window” should be “sliding door.” Applicant respectfully submits that the original text is correct, as the invention is focused on detecting a foreign object in an open area of a window, and on controlling the opening of a sliding door to a fully open position based upon the detection of a foreign object in the open area of the window.

The Examiner also points to claim 4, line 5 and suggests that the word “an” should be added. The Examiner is correct and an appropriate amendment has been made.

The Examiner also questions the phrase “gets stuck” as it appears in claim 5, line 10. Applicant believes that a better term is “for encountering” and an appropriate amendment using the proposed term has been made.

In claim 10, line 2, the Examiner suggests that the numeral “0” be spelled out. An appropriate change to the claim has been made.

Finally, in reviewing the claims, Applicant noted that the article “a” should be added at line 2 of claim 9. Also, the words “open/close switch” in claim 7 and 8 should read as “door open/close switch” to avoid an ambiguity. The “door open/close switch” in claims outputs a signal to open or close the slide door, but that in current specification is for operating the window driving mechanism (page 4, line 10 to 25). Appropriate amendments have been made.

Claim Rejections – 35 USC 102

Claims 1, 2 and 5-10 are rejected under 35 USC 102(a) as being anticipated by Yogo et al (2003/016995). This rejection is traversed for at least the following reasons.

Claim 1 defines the “open area” at line 4 as being formed in a window that opens and closes. The claim requires at lines 8 and 9 a foreign object detecting unit that detects a foreign object in the “open area” that is created by the window. Finally, the claim requires a slide

stopping unit that stops sliding of the door upon the foreign object detecting unit detecting a foreign object in the “open area.”

Yogo et al discloses a door apparatus for a vehicle that stops the opening of a sliding door 1 when a window 15 is open, but does not concern detecting an obstacle in an open area of the window. Control of the door is simply based upon the detector 17 identifying a position of the window glass and conveying that position by a cable 16 to a door stopper unit 14. However, this has nothing to do with detecting a foreign object at all.

The reference mentions contact with “obstacles” at paragraph [0052] but this does not relate to windows and does not relate to foreign obstacles.

Since several limitations in the claim are missing, the claim cannot be anticipated. Dependent claims 2 and 5-10 similarly cannot be anticipated.

Claim Rejections – 35 USC 103

Claims 3 and 4 are further rejected under 35 USC 103(a) as being unpatentable over Yogo et al in view of Kyritsos (6,925,755). This rejection is traversed for at least the following reasons.

Kyritsos concerns a structure for detecting an object in a window opening by signal field mapping, using transmitters 18, 18' to transmit signals that are reflected back to commonly positioned detectors 20, 20'. The reflected signals have a particular pattern due to reflections from vehicle structures, such as frame 16, and such pattern can be stored. Where a foreign object 33 (Fig. 4) exists in the window opening, a different pattern results. A difference between a stored pattern data for a state involving a normal window condition (no object) and a stored pattern data for a state where a foreign object is present, can be used to prevent closing of the window, as explained at col. 2, line 49 to col. 3, line 38.

However, Kyritsos does not concern the control of a door due to the detection of a foreign object in the window. Since Kyritsos doesn't even concern an automatic sliding door and the problems associated with an opening of the door when a window in the door also is open, causing potential harm to a person, object or the window itself, it cannot render the claimed invention obvious.

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As to Yogo et al, it doesn't even recognize the need for an additional safety measure for determining if a window is open and an object is actually in the open window area. Applicants have contributed an additional level of security and to modern vehicle sliding doors that is both novel and unobvious.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

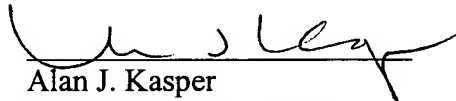
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